

High reliability standard type pressure transducer

PRB series

2023/03/22

Features



- Small size, light weight, easily attached and detached.
- Abundant lineups corresponding to wide-range pressure.

Specification

Specification name	Specification contents
Rated capacity	1 Mpa ~ 100 MPa
Safe overload	150 %R.C.
Ultimate overload	300 %R.C. (PRB-100MP: 200 %R.C.)
Rated output	1.5 mV/V \pm 0.015 mV/V (PRB-1MP: 1 mV/V \pm 0.01 mV/V)
Non-linearity	0.2 %R.O. (PRB-1MP: 0.3%R.O.)
Hysteresis	0.2 %R.O. (PRB-1MP: 0.3%R.O.)
Repeatability	0.3 %R.O.
Excitation, recommended	6 V or less
Excitation, maximum	10 VDC
Zero balance	PRB-1MP: \pm 0.05 mV/V, PRB-2MP ~ 100MP: \pm 0.045 mV/V
Input resistance	350 Ω \pm 3.5 Ω
Output resistance	350 Ω \pm 3.5 Ω

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Output resistance	350 Ω±3.5 Ω
Insulation resistance	1 000 MΩ or more. (50 VDC) (between lead and main body.)
Temp. range, compensated	-10 °C ~ 60 °C
Temp. range, safe	-15 °C ~ 100 °C
Temp. effect on zero	0.2 %R.O./10 °C
Temp. effect on output	0.2 %LOAD/10 °C
Connector	with NDI-7P-R (receptacle),] Connector P/N : PRC03-21A10-7F
Cable	CAC-101-5M (Options)
Class of protection	IP64 or equivalent
Material of element	Stainless steel
Mounting screw	G3/8{PF} (PRB-100K : G1/2{PF})

Table of P/N

Parts No.	Rated capacity [Mpa]	Ultimate overload [%R.C.]	Rated output [mV/V]	Tolerance of rated output [mV/V]	Non-linearity [%R.O.]	Hysteresis [%R.O.]
PRB-1MP	1	300	1	0.01	0.3	0.3
PRB-2MP	2	300	1.5	0.015	0.2	0.2
PRB-5MP	5	300	1.5	0.015	0.2	0.2
PRB-10MP	10	300	1.5	0.015	0.2	0.2
PRB-20MP	20	300	1.5	0.015	0.2	0.2
PRB-30MP	30	300	1.5	0.015	0.2	0.2
PRB-50MP	50	300	1.5	0.015	0.2	0.2
PRB-100MP	100	200	1.5	0.015	0.2	0.2

Parts No.	Repeatability [%R.O.]	Natural frequency [KHz]	Weight(Approx.) [g]	CAD files[DXF]	3D CAD files [STEP]
PRB-1MP	0.3	17	220	prb1_10mp.dxf	PRB-1MP.STEP
PRB-2MP	0.3	19	220	prb1_10mp.dxf	PRB-2MP.STEP
PRB-5MP	0.3	34	220	prb1_10mp.dxf	PRB-5MP.STEP
PRB-10MP	0.3	39	220	prb1_10mp.dxf	PRB-10MP.STEP
PRB-20MP	0.3	68	300	prb20_50mp.dxf	PRB-20MP.STEP

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PRB-30MP	0.3	89	300	prb20_50mp.dxf	PRB-30MP.STEP
PRB-50MP	0.3	104	300	prb20_50mp.dxf	PRB-50MP.STEP
PRB-100MP	0.3	205	450	prb100mp.dxf	PRB-100MP.STEP